



City of Milpitas

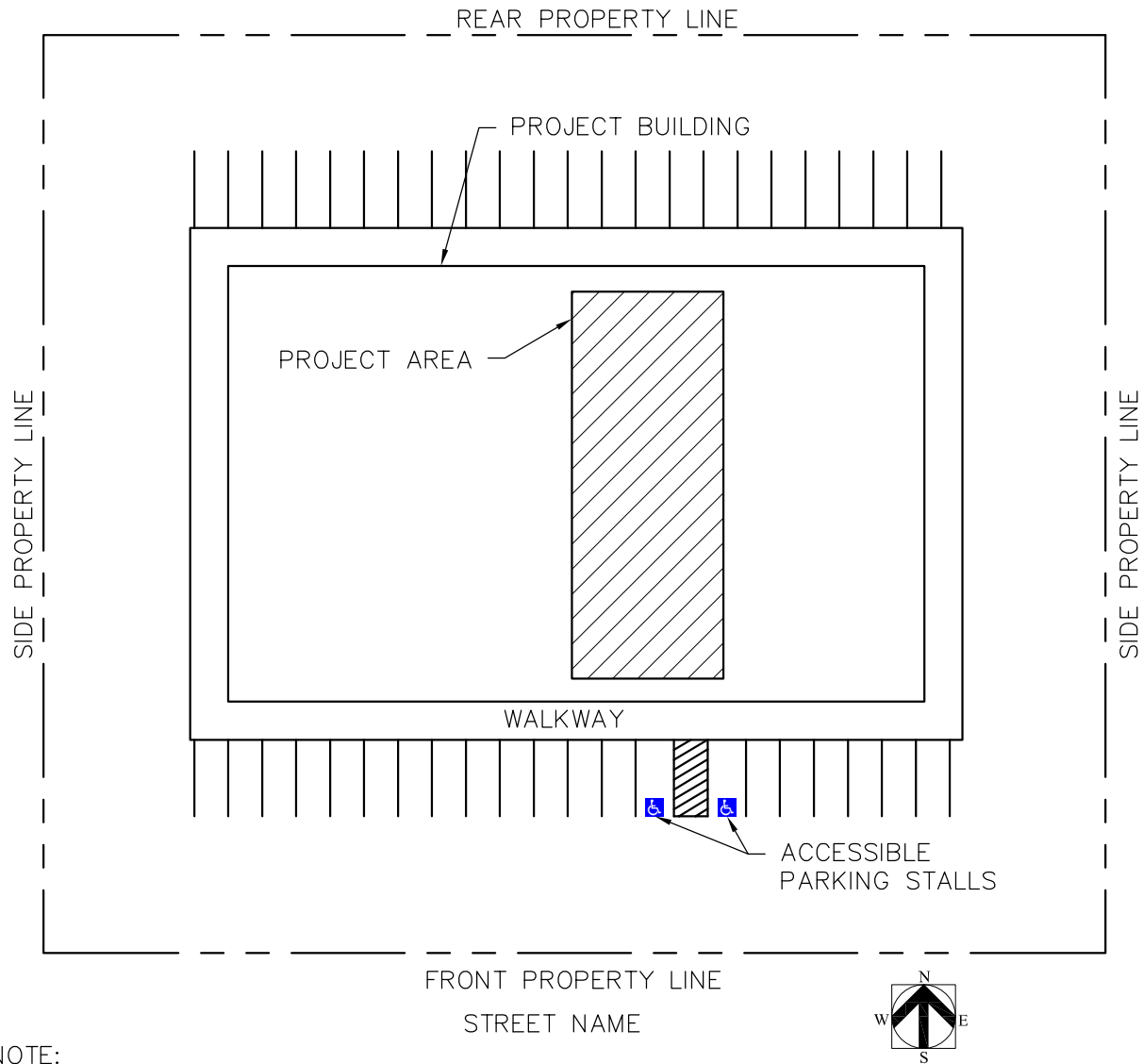
Building & Safety Department

DESIGN GUIDELINES FOR FLOOR MOUNTED EQUIPMENT ANCHORAGE



455 E. Calaveras Blvd.
Milpitas, CA 95035
408-586-3240
www.ci.milpitas.ca.gov

REV. JANUARY 2014



NOTE:

1. INDICATE PROPERTY LINES, STREET NAMES, LOCATION OF THE BUILDING, ALL PARKING INCLUDING ACCESSIBLE PARKING, AND NORTH ARROW SIGN.
2. INDICATE SCOPE OF WORK AND PROJECT AREA.
3. INDICATE TENANT SPACE ADDRESS.
4. INDICATE THE NAME, ADDRESS & TELEPHONE NUMBER OF THE PERSON WHO PREPARED THE PLANS.
5. INDICATE PROJECT INFORMATION:
 - TYPE OF CONSTRUCTION
 - TYPE OF OCCUPANCY
 - FIRE SPRINKLERS
 - SQUARE FOOTAGE OF BUILDING
 - SQUARE FOOTAGE OF PROJECT AREA
 - NUMBER OF STORIES
6. INDICATE THE SEISMIC DESIGN PARAMETERS AS FOLLOWS:
 - Sds = 1.0
 - Ip = 1.0
 - ap = 1.0
 - Rp = 1.5

REV.	DATE	BY:	SCALE: N.T.S.
1	2/10	BYC	DATE: OCT 2009
2	1/11	OC/BK	DRAWN BY: BYC
3	1/14	OC	REVIEWED BY: KI/LS/OC/BK/GA

City of Milpitas
 Building & Safety Department
FLOOR MOUNTED EQUIPMENT ANCHORAGE
SAMPLE SITE PLAN

SHEET
1
 OF 4 SHEETS

NOTE:

1. THE FLOOR PLAN SHALL INDICATE THE LAYOUT OF THE EQUIPMENTS TO BE INSTALLED. IN ADDITION, THE FLOOR PLAN SHALL SHOW ROOMS AND THEIR USE, ROOM DIMENSIONS, LOCATION OF DOORS IN ROOMS, CORRIDOR, RESTROOM, EXIT DOORS, (E) EQUIPMENT, (E) RACKS, (E) FURNITURES, ETC.
2. PROVIDE EQUIPMENT SCHEDULE TO INDICATE THE WEIGHT, HEIGHT AND DIMENSIONS OF THE EQUIPMENTS.
3. SPECIAL INSPECTION IS REQUIRED FOR EPOXY OR EXPANSION ANCHORS.
4. INDICATE ILLUMINATED EXIT SIGNS, TACTILE EXIT SIGNS, COMMON PATH OF EGRESS TRAVEL, MAX. EXIT ACCESS TRAVEL DISTANCE.

* 44"MIN. ON PUSH SIDE
48" MIN. ON PUSH SIDE WITH 12" MIN. CLEARANCE AT THE LATCH SIDE OF DOOR WHEN THE DOOR HAS BOTH A CLOSER AND A LATCH
60"MIN. ON PULL SIDE

** 36"MIN. AISLE SERVING ONE SIDE

^ 44"MIN. AISLE SERVING BOTH SIDES

LEGEND

TACTILE EXIT SIGN:

□ "EXIT ROUTE" AT EXIT ACCESS DOOR
□ "EXIT" AT EXTERIOR EXIT DOOR

⬤ ILLUMINATED EXIT SIGN (WITH DIRECTIONAL ARROW AS REQ.)

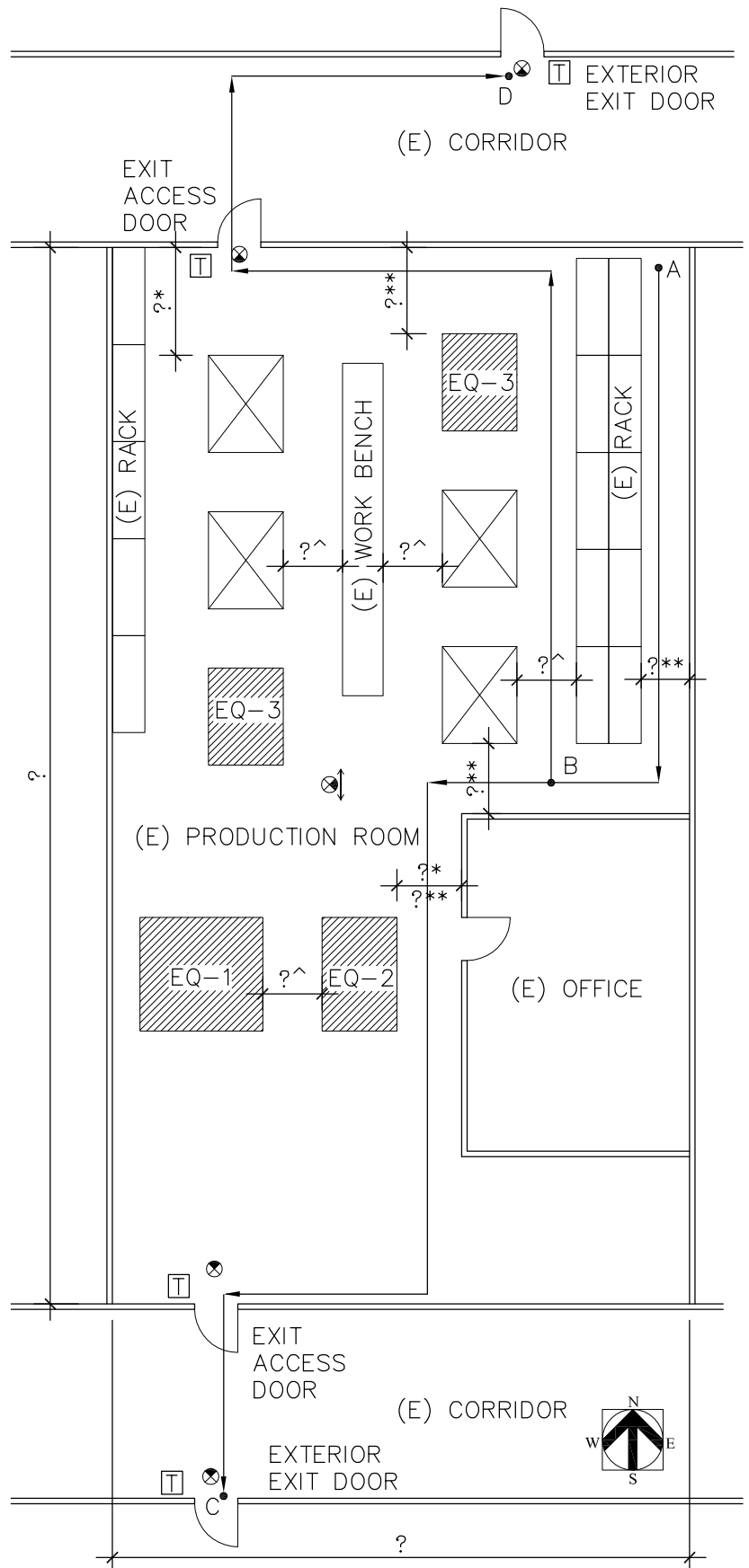
→ PATH OF TRAVEL

EQ-1 (N) EQUIPMENT

⊗ (E) EQUIPMENT

COMMON PATH OF EGRESS TRAVEL:
(POINT A TO B) = ?

MAX. EXIT ACCESS TRAVEL DISTANCE:
(POINT A TO C OR POINT A TO D) = ?

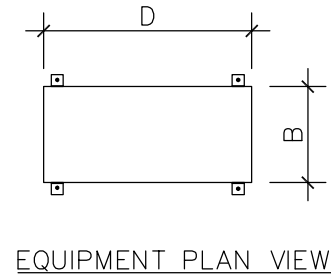
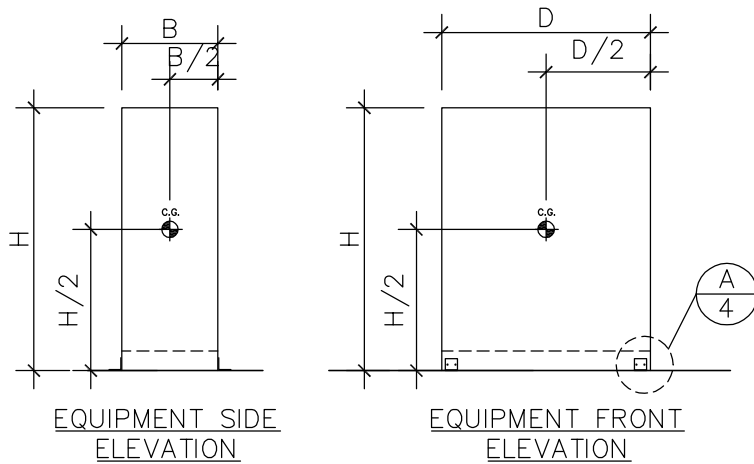


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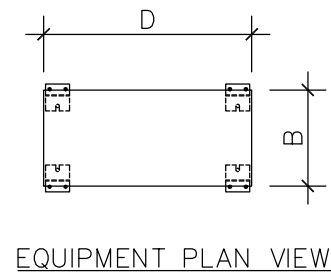
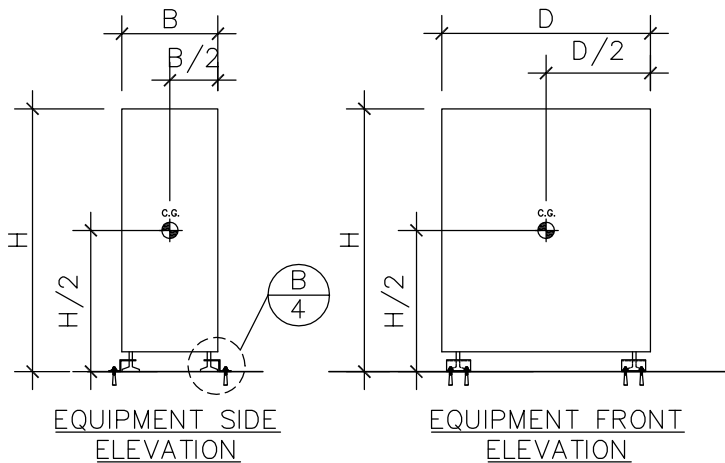
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Building & Safety Department
FLOOR MOUNTED EQUIPMENT ANCHORAGE
SAMPLE FLOOR PLAN

SHEET
2
OF 4 SHEETS

CASE 1: ANCHORAGE ATTACHED TO EQUIPMENT FACES



CASE 2: ANCHORAGE ATTACHED TO EQUIPMENT LEGS



LEGEND

CENTER OF GRAVITY OF EQUIPMENT

EQUIPMENT SCHEDULE (SEE NOTE 1)

EQUIPMENT NO.	WEIGHT	HEIGHT H	WIDTH B	LENGTH D
EQ-1	?	?	?	?
EQ-2	?	?	?	?
EQ-3	?	?	?	?

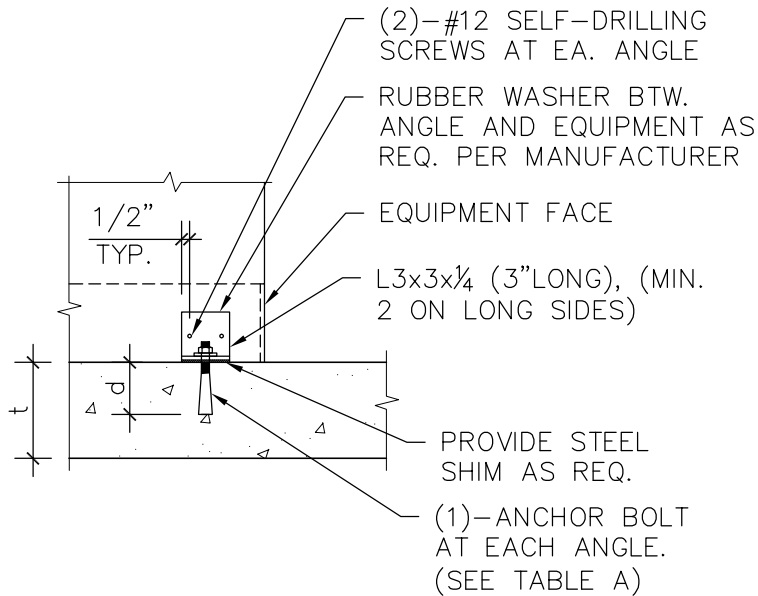
NOTES:

1. THIS DESIGN GUIDELINES ARE LIMITED TO FLOOR MOUNTED EQUIPMENTS WITH MAX. WEIGHT OF 1000 LB AND MIN. DIMENSION OF 1'-6" AND MAX. HEIGHT OF 6'-0".
2. EQUIPMENTS IN BUILDINGS CLASSIFIED AS OCCUPANCY CATEGORY III & IV PER TABLE 1604.5 OF 2013 CBC AND CONTAINING HAZARDOUS MATERIALS SHALL BE DESIGNED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA AND IS NOT INCLUDED IN THIS GUIDELINE.
3. CONCRETE SLAB SUPPORTING EQUIPMENT SHALL BE VERIFIED IN FIELD TO BE FREE OF CRACK AND IN GOOD CONDITIONS.
4. EQUIPMENT SHALL BE OF RECTANGULAR SHAPE WITH CENTER OF GRAVITY AT MID WIDTH AND AT OR BELOW MID HEIGHT.

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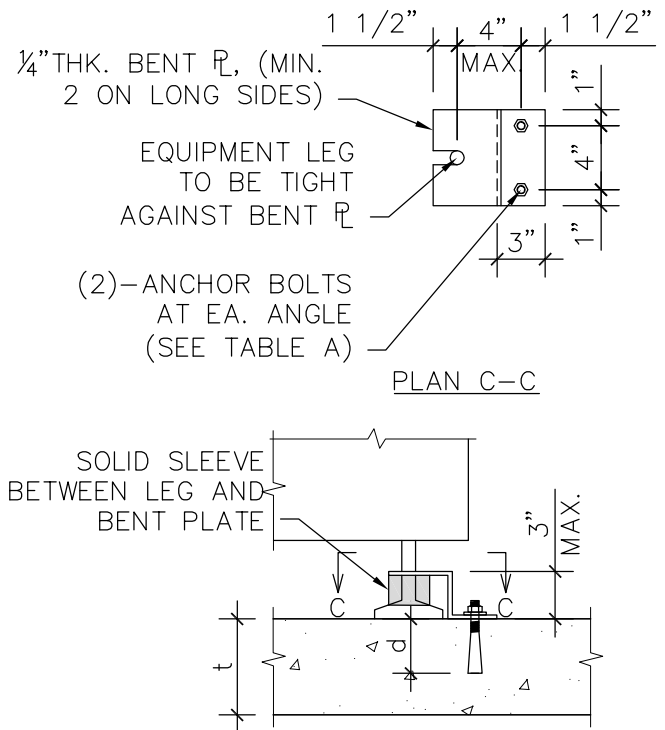
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 Building & Safety Department
FLOOR MOUNTED EQUIPMENT ANCHORAGE
SAMPLE DETAILS

SHEET
3
 OF 4 SHEETS



NOTE: SEE TABLE A FOR "d" AND "t"

A ANCHORAGE DETAIL (CASE 1)
SCALE: 1"=1'-0"



NOTE: SEE TABLE A FOR "d" AND "t"

B ANCHORAGE DETAIL (CASE 2)
SCALE: 1"=1'-0"

ANCHOR TYPE		ANCHOR SIZE	MIN. EMBED. DEPTH (d)	MIN. SLAB THK. (t)	ICC-ESR REPORT NO.
EXPANSION ANCHORS	HILTI KB-TZ	$\frac{3}{8}" \phi$	2"	4"	1917
	SIMP. STRONG-BOLT	$\frac{1}{2}" \phi$	2 $\frac{3}{4}"$	5"	1771
	POWER-STUD+ SD1	$\frac{3}{8}" \phi$	2"	4"	2818
	ITW REDHEAD TRUBOLT+	$\frac{3}{8}" \phi$	2"	4"	2427
EPOXY ANCHORS	HILTI HIT RE500-SD	$\frac{3}{8}" \phi^*$	2"	4"	2322
	SIMP. SET-XP	$\frac{1}{2}" \phi^*$	4"	6 $\frac{1}{2}"$	2508
	POWERS PE1000+	$\frac{1}{2}" \phi^*$	2 $\frac{3}{4}"$	4"	2583

* ANCHOR ROD SHALL BE ASTM A307 GR. A OR F1554 GR. 36

NOTE:

OTHER ALTERNATIVE CURRENT ICC APPROVED EXPANSION ANCHORS OR EPOXY OF EQUIVALENT FUNCTION AND CAPACITY MAY BE USED IN LIEU OF THOSE SPECIFIED IN THE TABLES ABOVE.

DISCLAIMER:

THE INFORMATION PROVIDED IN THIS DESIGN GUIDELINES CARRIES NO IMPLIED OR INFERRED GUARANTEE AGAINST FAILURE OR DEFECTS. BY USING THIS DESIGN GUIDELINES THE CONTRACTOR/OWNER ACCEPTS THE FULL RESPONSIBILITY OF RISK. ALTERNATE DESIGN MAY BE USED WHEN PROVIDED WITH WET STAMPED AND SIGNED STRUCTURAL CALCULATIONS & DETAILS BY A CALIFORNIA LICENSED ENGINEER OR ARCHITECT.

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SAMPLE DETAILS

SHEET
4
OF 4 SHEETS



CITY OF MILPITAS

BUILDING AND SAFETY DEPARTMENT

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CITY OF MILPITAS DISCLAIMER

The City of Milpitas has provided design guidelines to the public for informational purposes. These guidelines are sufficient to meet the Building Code requirements and obtain a City permit. However, the guidelines were drafted to fit generic design and building conditions, not project specific conditions.

I, the undersign, expressly acknowledge and agree that any and all use of the City of Milpitas Building & Safety Department Design Guidelines is at my sole risk. Neither the City of Milpitas nor any of its respective employees, agents, or officials warrant that access to and use of the Guidelines will be free from failure or defects. Nor does the City of Milpitas offer any warranty for the results that may be obtained from using the Guidelines or for the accuracy, reliability or design of any information provided by the Guidelines.

Print Name

Company

Signature

Plan Check No.

Date